

## REMARKS

Claims 1-14 are pending in the application and stand rejected under 35 U.S.C. §103(a). Applicant respectfully submits that the following Remarks remove all grounds for rejection of the application, thereby placing it in condition for allowance.

### Priority claim to provisional patent application U.S. Serial No. 60/250,894:

The Examiner states that:

“[...] Applicant’s claim of priority to provisional patent application US serial No. 60/250,894 over the Rakowski (PCT WO 01/78851) reference can not be used to give this application the filing date of the provisional because the general term “chromogen” was not present in the provisional application.”

Applicant respectfully disagrees with the Examiner’s conclusion. In particular, Applicant notes that independent pending claim 10 is unambiguously supported by claim 1 of the provisional application (see also page 1, lines 24-26 of the provisional application). The limitations of dependent claims 3, 5, 7 and 12-14 are also explicitly taught in the provisional application (e.g., see page 2, line 17 to page 3, line 18; page 3, lines 21-25; page 4, lines 17-18; page 4, lines 26-28; and page 5, lines 19-26). Withdrawal of the rejection of at least claim 10 (and claims 3, 5, 7 and 12-14 as dependent therefrom) is respectfully requested.

In this context, Applicant would also like to correct an inadvertent mistake that was made in the Response to Office Action that was filed May 5, 2003. In that Response, Applicant stated that the effective 102(e) date of the Rakowski reference was April 12, 2001 (i.e., the international filing date). This was incorrect, Rakowski has an effective 102(a) date as of the international publication date of October 25, 2001 but does *not* have an effective 102(e) date. Indeed, as noted under MPEP §2136.03(II), “[...] international application publications may also be applied as prior art as of their international filing dates [...] but *only if the [...] the international application entered the national stage as to the United States*”. Applicant searched the USPTO database but found no corresponding national stage application (it would have been filed before October 13, 2002 and should have published shortly thereafter).

Declaration:

The Declaration that was filed on March 18, 2002 in response to the Notice to File Missing Parts was objected to by the Examiner in a first Office Action mailed February 5, 2003. The Declaration was objected to because the date of Applicant's signature was missing. On May 5, 2003 Applicant therefore filed a signed *and* dated substitute Declaration along with a Response to the first Office Action. Filed herewith as **Exhibit A** is a true copy of a stamped return postcard confirming that the PTO received the two-page substitute Declaration on May 8, 2003. In the latest Office Action, the Examiner indicates that the substitute Declaration is somehow missing. Based on the foregoing, Applicant can only assume that the substitute Declaration must have been misplaced within the PTO. A new copy of the substitute Declaration is therefore enclosed with this Response.

Rejection of claims 1-12 under 35 U.S.C. §103(a) in view of Rakowski:

Claims 1-12 and 15-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rakowski (PCT WO 01/78851). Applicant notes that claims 15-16 were canceled in the Response filed May 5, 2003. More specifically, the Examiner argues that:

“[...] Rakowski discloses the invention as recited above he fails to explicitly state if the fibers include a chromogen. However, since Rakowski indicates the layers 2 and 4 in Fig. 1 and layers 12 and 14 in Fig. 2 are optional (for example refer to page 4 of the specification), then it is possible that the fibers on layer 1 or layer 11 of the different embodiments could absorb the chromogen that is being applied to the back of the layer 11 as disclosed in the last paragraph of page 7. [...]”

This rejection is respectfully traversed; reconsideration and withdrawal is requested. First, Applicant points out that Rakowski does not describe a device in which layer 1 or layer 11 contains the chromogen. Rather, the Examiner hypothesizes that if the Rakowski device were modified, a device might be produced in which some chromogen enters layer 1 or layer 11. Nothing in Rakowski suggests that this might occur; it is the Examiner's invention.

Moreover, even if the chromogen were to enter layer 1 or layer 11, there is no indication

that it would enter the *fibers* that are optionally deposited on top of layer **1** or layer **11**. The present claims recite a device in which the *fibers* include a chromogen. There is no teaching or suggestion of such a device in Rakowski, even as modified by the Examiner.

In fact, even if the Examiner is correct that removal of layers **2** and **4** or **12** and **14** *could* allow some chromogen movement (e.g., under certain circumstances), it is well established that the *possibility* that a result or characteristic could exist in the prior art is *not* sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993). In order to establish inherency, the extrinsic evidence “must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Withdrawal of the rejection is therefore respectfully requested.

The Examiner also argues that:

“[...] it would have been obvious to one of ordinary skill in the art at the time of the invention was made to paint, spray, or apply the chromogen element directly to the fibers of the Rakowski’s device in order to reduce the manufacturing cost by reducing the number of parts needed to fabricate the device and improve the color change.”

Again, Applicant respectfully disagrees. The modified manufacturing process that the Examiner suggests is entirely contrary to the teachings of Rakowski. Indeed, as discussed in response to the previous Office Action, Rakowski explicitly teaches that the liquid crystals should be located at the *heart* of his multi-layer device, namely within layer **3** that is sandwiched in between protection layer **1**, heating layer **5** and support layer **6**. Additional stabilization layer **2** and compressible layer **4** are optional (e.g., see Fig. 2). The fibers that the Examiner refers to are optionally added on the surface of protection layer 1 to provide the appearance and texture of grass. Rakowski places the liquid crystals below the protection layer **1** in order to protect them from the elements and to ensure the durability of the device (e.g., see page 3, lines 28-30 and page 6, lines 24-30). Rakowski places the liquid crystals directly above the heating layer **5** (or

separated therefrom by an optional heat conducting layer 4) so that heat is rapidly transferred to the liquid crystals at a point of impact (e.g., see page 5, lines 23-25 and page 6, lines 2-8). The Examiner's suggestion that one skilled in the art would be motivated to paint, spray, or apply the liquid crystals directly onto the optional surface fibers instead of or in addition to layer 3 flies in the face of these teachings. Based on Rakowski and without the benefit of hindsight provided by review of the present application, one skilled in the art would certainly not expect such a modification to *improve* the color change. Instead, he or she would expect the suggested modification to *reduce the durability* of the device and *weaken* the color change.

In addition, with regards to dependent claim 3 (chromogen is stress chromic), dependent claim 4 (chromogen is chemically chromic), independent claim 10 (fibers respond to an elastic elongation) and independent claim 11 (fibers respond to a change in chemical environment), Applicant notes that Rakowski teaches a device that includes a *thermochromic* chromogen (i.e., a liquid crystal that changes color in response to a change in *temperature*, e.g., see page 7, lines 19-26). There is no teaching in Rakowski of chromogens that change color in response to an *elastic elongation* (i.e., stress chromic chromogens, see page 5, line 21 to page 7, line 4 of the present application) or a change in *chemical environment* (i.e., chemically chromic chromogens, see page 10, line 9 to page 11, line 3 of the present application). Absent some teaching or suggestion of these limitations, Rakowski cannot render obvious claims 3, 4, 10 or 11.

Rejection of claims 13-14 under 35 U.S.C. §103(a) in view of Rakowski and Johnson:

Claims 13 and 14 stand rejected under 35 U.S.C. §103(a) as being anticipated by Rakowski in view of Johnson (U.S. Patent No. 5,394,824). This rejection is respectfully traversed; reconsideration and withdrawal is requested.

The deficiencies of Rakowski described in the previous section are not remedied by Johnson. Indeed, the combined references do not teach an artificial turf comprising a substrate and a plurality of fibers protruding from the substrate, wherein the fibers include a chromogen (as required to render obvious claim 1 and hence claims 13 and 14 that depend therefrom). The Examiner relies on Johnson solely to teach certain elements added in dependent claims 13 and 14, specifically the inclusion of indicia for marking the boundaries of a sports field. Since at

least one limitation of claims 13 and 14 is not even taught or suggested by the combined references, the rejection of claims 13-14 under 35 U.S.C. §103(a) cannot stand. Applicant therefore respectfully requests that the Examiner also withdraw this rejection.

### Conclusion:

Based on the arguments presented above, it is submitted that the pending claims are allowable over the art of record. Applicant would like to thank the Examiner for her thoughtful comments and careful consideration of the case. If it is believed that a telephone conversation would help expedite prosecution of this case, or if any further information is required, the Examiner is invited to contact the undersigned at (617) 248-4793. Please charge any fees that may be required, or credit any overpayment, to our Deposit Account No. 03-1721.

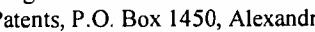
Respectfully submitted,

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Limited Recognition Under 37 CFR §10.9(b)

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Dated: August 13, 2003

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Date Filed: May 5, 2003

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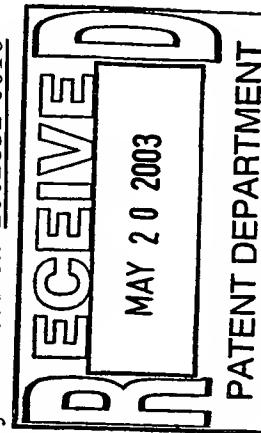
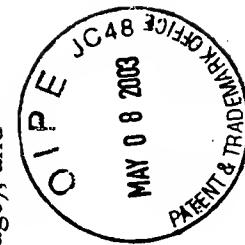
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1. Transmittal Letter (1 page);
2. Response to Office Action Under 37 C.F.R. § 1.111(9 pages);
3. Substitute Declaration (2 pages);
4. Statement of Limited Recognition Under 37 C.F.R. §10.9(b) (1 page); and
5. Return Postcard

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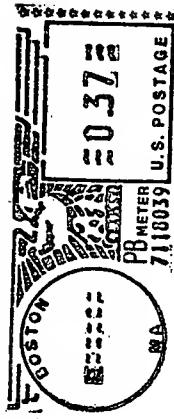
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## EXHIBIT A



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